

ABSTRACT OF THE DISCLOSURE

The invention provides a method and apparatus for increasing the accuracy for locating a cellular mobile station in an urban area. The method is performed as follows: at first, if there is a request for location, the approximate position of a mobile station is determined by sector information, the time of arrival, and a time difference of arrival; then, the transmission of a locating pilot frequency for an adjacent assistant locating apparatus is initiated, and in the case of the transmission of the assistant locating pilot frequency, the time difference of arrival is measured once again; at the end of the measurement of the mobile station, the locating transmission of the assistant locating apparatus is closed; the assistant locating apparatus is requested to report the result of NLOS identification; with the measurement of the assistant locating pilot frequency by the mobile station and the result of NLOS identification, the position of the mobile station is estimated to acquire a more accurate position of the mobile station.